

FAEIS Forestry and Natural Resources CIPS with Definitions

<u>CIP</u>	<u>Name</u>	<u>Description</u>
03.0101	Natural Resources/Conservation, General	A general program that focuses on the studies and activities relating to the natural environment and its conservation, use, and improvement. Includes instruction in subjects such as climate, air, soil, water, land, fish and wildlife, and plant resources; in the basic principles of environmental science and natural resources management; and the recreational and economic uses of renewable and nonrenewable natural resources.
03.0103	Environmental Studies	(NEW) A program that focuses on environment-related issues using scientific, social scientific, or humanistic approaches or a combination. Includes instruction in the basic principles of ecology and environmental science and related subjects such as policy, politics, law, economics, social aspects, planning, pollution control, natural resources, and the interactions of human beings and nature.
03.0104	Environmental Science	(NEW) A program that focuses on the application of biological, chemical, and physical principles to the study of the physical environment and the solution of environmental problems, including subjects such as abating or controlling environmental pollution and degradation; the interaction between human society and the natural environment; and natural resources management. Includes instruction in biology, chemistry, physics, geosciences, climatology, statistics, and mathematical modeling.
03.0199	Natural Resources Conservation and Research, Other	(NEW) Any instructional program in natural resources conservation and research not listed above.
03.0201	Natural Resources Management and Policy	A program that prepares individuals to plan, develop, manage, and evaluate programs to protect and regulate natural habitats and renewable natural resources. Includes instruction in the principles of wildlife and conservation biology, environmental science, animal population surveying, natural resource economics, management techniques for various habitats, applicable law and policy, administrative and communications skills, and public relations.
03.0204	Natural Resource Economics	(NEW) A program that focuses on the application of economic concepts and methods to the analysis of issues such as air and water pollution, land use planning, waste disposal, invasive species and pest control, conservation policies, and related environmental problems. Includes instruction in cost-benefit analysis; environmental impact assessment; evaluation and assessment of alternative resource management strategies; policy evaluation and monitoring; and descriptive and analytic tools for studying how environmental developments affect the economic system.
03.0205	Water, Wetlands, and Marine Resources Management	(NEW) A program that prepares individuals to apply the principles of marine/aquatic biology, oceanography, natural resource economics, and natural resources management to the development, conservation, and management of freshwater and saltwater environments. Includes instruction in subjects such as wetlands, riverine, lacustrine, coastal, and oceanic water resources; water conservation and use; flood control; pollution control; water supply logistics; wastewater management; aquatic and marine ecology; aquatic and marine life conservation; and the economic and recreational uses of water resources.
03.0206	Land Use Planning and Management/Development	(NEW) A program that focuses on how public and/or private land and associated resources can be preserved, developed, and used for maximum social, economic, and environmental benefit. Includes instruction in natural resources management, natural resource economics, public policy, regional and land use planning, environmental impact assessment, applicable law and regulations, government and politics, principles of business and real estate land use, statistical and analytical tools, computer applications, mapping and report preparation, site analysis, cost analysis, and communications skills.
03.0299	Natural Resources Management and Policy, Other	Any instructional program in natural resources management and policy not listed above.

03.0301	Fishing and Fisheries Sciences and Management	A program that focuses on the scientific study of the husbandry and production of non-domesticated fish and shellfish populations for recreational and commercial purposes and the management of fishing and marine/aquatic product processing to ensure adequate conservation and efficient utilization. Includes instruction in the principles of marine/aquatic biology, freshwater and saltwater ecosystems, water resources, fishing production operations and management, fishing policy and regulation, and the management of recreational and commercial fishing activities.
03.0501	Forestry, General	A program that generally prepares individuals to manage and develop forest areas for economic, recreational, and ecological purposes. Includes instruction in forest-related sciences, mapping, statistics, harvesting and production technology, natural resources management and economics, wildlife sciences, administration, and public relations.
03.0502	Forest Sciences and Biology	A program that focuses on the application of one or more forest-related sciences to the study of environmental factors affecting forests and the growth and management of forest resources. Includes instruction in forest biology, forest hydrology, forest mensuration, silviculture, forest soils, water resources, environmental science, forest resources management, and wood science.
03.0506	Forest Management/Forest Resources Management	A program that prepares individuals to apply principles of forestry and natural resources management to the administration of forest lands and related resources. Includes instruction in silviculture, forest mensuration, forest protection, inventorying, biometrics, geographic information systems, remote sensing, photogrammetry, forest policy and economics, forest land use planning, fire protection and management, and related administrative skills.
03.0508	Urban Forestry	(NEW) A program that prepares individuals to apply the principles of forestry and related sciences to the development, care, and maintenance of individual trees and forested areas within or close to areas of dense human habitation. Includes instruction in urban environments; effects of pollution on tree species; environmental design and landscaping; urban pest infestation; urban forest management; and applicable policies and regulations.
03.0509	Wood Science and Wood Products/Pulp and Paper Technology	A program that focuses on the application of chemical, physical, and engineering principles to the analysis of the properties and behavior of wood and wood products and the development of processes for converting wood into paper and other products. Includes instruction in wood classification and testing, product development, manufacturing and processing technologies, and the design and development of related equipment and systems.
03.0510	Forest Resources Production and Management	(NEW) A program that focuses on the application of forestry principles to the production, harvesting, and processing of forest resources and that prepares individuals to perform associated technical and managerial functions.
03.0511	Forest Technology/Technician	(NEW) A program that prepares individuals to assist foresters in the management and production of forest resources. Includes instruction in woods and field skills, tree identification, timber measurement, logging and timber harvesting, forest propagation and regeneration, forest fire-fighting, resource management, equipment operation and maintenance, record-keeping, sales and purchasing operations, and personnel supervision.
03.0599	Forestry, Other	Any program in forestry not listed above.
03.0601	Wildlife and Wildlands Science and Management	A program that prepares individuals to conserve and manage wilderness areas and the flora and fauna therein, and manage wildlife reservations and zoological facilities for recreational, commercial, and ecological purposes. Includes instruction in wildlife biology; environmental science; natural resources management and policy; outdoor recreation and parks management; the design and operation of natural and artificial wildlife habitats; applicable law and regulations; and related administrative and communications skills.
03.9999	Natural Resources and Conservation, Other	Any instructional program in natural resources and conservation not listed above.
14.0805	Water Resources Engineering	A program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems for collecting, storing, moving, conserving and controlling surface- and groundwater, including water quality control, water cycle management, management of human and industrial water requirements, water delivery, and flood control.

14.1401	Environmental/Environmental Health Engineering	A program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems for controlling contained living environments and for monitoring and controlling factors in the external natural environment, including pollution control, waste and hazardous material disposal, health and safety protection, conservation, life support, and requirements for protection of special materials and related work environments.
14.3401	Forest Engineering	(NEW) A program that prepares individuals to apply scientific, mathematical, and forestry principles to the design of mechanical devices and processes for efficient forest management, timber production and related forest logistics systems. Includes instruction in forest products processing, forest management, forest harvesting, timber structure design, production analysis, road and bridge construction, vehicle adaptation and design, and harvesting equipment design.
26.0709	Wildlife Biology	(NEW) A program that focuses on the application of biological principles to the study of vertebrate wildlife, wildlife habitats, and related ecosystems in remote and urban areas. Includes instruction in animal ecology; adaptational biology; urban ecosystems; natural and artificial habitat management; limnology; wildlife pathology; and vertebrate zoological specializations such as mammalogy, herpetology, ichthyology, ornithology, and others.
26.1302	Marine Biology and Biological Oceanography	A program that focuses on the scientific study of the ecology and behavior of microbes, plants, and animals inhabiting oceans, coastal waters, and saltwater wetlands and their interactions with the physical environment. Includes instruction in chemical, physical, and geological oceanography; molecular, cellular, and biochemical studies; marine microbiology; marine botany; ichthyology; mammalogy; marine population dynamics and biodiversity; reproductive biology; studies of specific species, phyla, habitats, and ecosystems; marine paleocology and palentology; and applications to fields such as fisheries science and biotechnology. (Moved from 26.0607)
26.1304	Aquatic Biology/Limnology	(NEW) A program that focuses on the scientific study of the ecology and behavior of microbes, plants, and animals inhabiting inland fresh waters such as lakes, ponds, rivers, creeks, estuaries, and wetlands. Includes instruction in geology and hydrology; aquatic ecosystems; microbiology; mycology; botany; ichthyology; mammalogy; population biology and biodiversity; studies of specific species, phyla, and habitats; and applications to fields such as natural resources conservation, fisheries science, and biotechnology.
26.1305	Environmental Biology	(NEW) A program that focuses on the scientific study of the origins, functions, relationships, interactions, and natural history of living populations, communities, species, and ecosystems in relation to dynamic environmental processes. Includes instruction in biodiversity, molecular genetic and genomic evolution, mesoscale ecology, computational biology and modeling, conservation biology, local and global environmental change, and restoration ecology.
26.1307	Conservation Biology	(NEW) A program that focuses on the application of the biological sciences to the specific problems of biodiversity, species preservation, ecological sustainability, and habitat fragmentation in the face of advancing human social, economic, and industrial pressures. Includes instruction in ecology, environmental science, biological systems, extinction theory, human-animal and human-plant interaction, ecosystem science and management, wetland conservation, field biology, forest and wildlife biology, and natural history.
31.0101	Parks, Recreation and Leisure Studies	A program that focuses on the principles underlying recreational and leisure activities, and the practices involved in providing indoor and outdoor recreational facilities and services for the general public.
31.0301	Parks, Recreation and Leisure Facilities Management	A program that prepares individuals to develop and manage park facilities and other indoor and outdoor recreation and leisure facilities. Includes instruction in supervising support personnel, health and safety standards, public relations, and basic business and marketing principles.
40.0605	Hydrology and Water Resources Science	(NEW) A program that focuses on the scientific of study of the occurrence, circulation, distribution, chemical and physical properties, and environmental interaction of surface and subsurface waters, including groundwater. Includes instruction in geophysics, thermodynamics, fluid mechanics, chemical physics, geomorphology, mathematical modeling, hydrologic analysis, continental water processes, global water balance, and environmental science.

